

Surface Drying and Over-Coating Time

CASTCO**佳力高試驗中心有限公司
CASTCO TESTING CENTRE LIMITED**

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Test Report

Paint - Bitumen-Based - Drying and Over-Coating Times

(BS 3416 : 1991 Cl. 6 and Cl. B.2 of App. B, App. C (with modifications) and
BS 3900 : Part C2 : 1994 Cl. 7 excluding 7.3 and BS 3900 : Part A3 : 1997 Cl. 3)

Date of issue : 05-11-2021

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Castco LRN : 210929-2356-2

Information as supplied by customer :-

Works Order No. : --

Customer : Cheung Hing Foundry (HK) Limited

Customer's Ref. No. : --

Address : 299 Pak Sha Tsuen, Kung Uan Road, Yuen Long, N.T.

Contract No. : --

Job Title : --

Sample Description : Bitumen Based Coating

Brand Name : 青松牌

Manufacture : 怡昌化工

Type : 2

Class : C

Sample ID : PM02109-03

Laboratory test result

Date of sample received : 31-08-2021

Date of test started : 27-09-2021

Date of test completed : 30-09-2021

Substrate : Steel panel with nominal dimension 150 x 100 mm (Length x Width)

Solid content percentage : 37%

Determination of Surface Drying Time

Requirement of dry film thickness : $37.5 \pm 5 \mu\text{m}$

Test condition : $23 \pm 2^\circ\text{C}$ & $50 \pm 5\%$ in R.H.

Specimen No.	HD-01
Surface Drying Time (≤ 8 hours)	Yes
Average Dry Film Thickness (μm)	38.2

Determination of Over-Coating Time

Requirement of dry film thickness : $75 \pm 10 \mu\text{m}$

Test condition : $23 \pm 2^\circ\text{C}$ & $50 \pm 5\%$ in R.H.

Specimen No.	HD-01
Cissing, crawling, sinking, lifting or wrinkling of coating during application	No
Cissing, crawling, sinking, lifting or wrinkling of coating after 24 hours	No
Average Dry Film Thickness (μm)	76.1

Remarks :

1. Test results relate only to the specimen(s) tested.

Checked by :

KWOK KENG HO
Assistant Technical Officer

Approved Signatory :

KWOK YUK LAM
CSWIP3.2-103520
ASNT Level III-179557
Technical Manager

End of Report

Form No. : PA(BB-Bend-BS3416) T dd 05/05/2021

Protection Against Corrosion

CASTCO**佳力高試驗中心有限公司
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Test Report

Paint - Bitumen-Based - Protection Against Corrosion

(BS 3416 : 1991 Cl. 2 & App. B Cl. B4 (with modification) and
BS 3900 : Part H2 : 1983 and BS 3900 : Part G5 : 1993 (Method 1 – procedure A) and ISO 4628-2 : 2003 (E))

Date of issue : 05-11-2021

Page 1 of 1 page(s)

Castco LRN : 210929-2356-4

Information as supplied by customer :-

Works Order No. : --

Customer : Cheung Hing Foundry (HK) Limited

Customer's Ref. No. : --

Address : 299 Pak Cha Tsuen, Kung Um Road, Yuen Long, N.T.

Contract No. : --

Job Title : --

Sample Description : Bitumen Based Coating

Brand Name : 青松牌

Manufacture : 怡昌化工

Type : 2

Class : C

Sample ID : PM02109-03

Laboratory test result

Date of sample received : 31-08-2021

Date of test started : 27-09-2021

Date of test completed : 16-10-2021

Substrate : Steel panel with nominal dimension 150 x 100 mm (Length x Width)

Condition of drying / ageing : 23 ± 2 °C & 50 ± 5 % in R.H. for 72 hours

Solid content percentage : 37%

Requirement of dry film thickness : 75 ± 10 µm

Resistance to Tap Water Immersion

Immersion period : 14 days

Specimen No.	A	B	C
Average Dry Film Thickness (µm)	77.1	78.2	75.9
Signs of Deteriorations	No	No	No
Degree of Blistering (BS 3900 : H2 : 1983)	2(S2)	2(S2)	2(S2)
Visible Rust	No	No	No
Visible Pitting	No	No	No

Resistance to Artificial Sea Water Immersion

Immersion period : 14 days

Specimen No.	D	E	F
Average Dry Film Thickness (µm)	77.6	75.1	77.4
Signs of Deteriorations	No	No	No
Degree of Blistering (BS 3900 : H2 : 1983)	2(S2)	2(S2)	2(S2)
Visible Rust	No	No	No
Visible Pitting	No	No	No

Remarks :

1. Test results relate only to the specimen(s) tested.

Checked by :

KWOK KENG HO
Assistant Technical Officer

Approved Signatory :

KWOK YUK LAM
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ASNT Level III-179557
Technical Manager

End of Report

Form No. : PA(BB) Corrosion(BS3416) T dd 05/05/2021

Bend Resistance

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Test Report

Paint - Bitumen-Based - Bend Resistance

(BS 3416 : 1991 Cl. 2 and Cl. B.5 of App. B, App. C (with modifications) and
BS 3900 : Part A3 : 1997 Cl. 4 and BS 3900 : Part E1 : 1995 Cl. 6 excluding 6.2.2 & 6.3)

Date of issue : 05-11-2021

Page 1 of 1 page(s)

Castco LBN : 210929-2356-5

Information as supplied by customer :-

Works Order No. : --

Customer : Cheung Hing Foundry (HK) Limited

Customer's Ref. No. : --

Address : 299 Pak Sha Tsuen, Kung Um Road, Yuen Long, N.T.

Contract No. : --

Job Title : --

Sample Description : Bitumen Based Coating

Brand Name : 青松牌

Manufacturer : 怡昌化工

Type : 2

Class : 3

Sample ID : PM02109-03

Laboratory test result

Date of sample received : 31-08-2021

Date of test started : 27-09-2021

Date of test completed : 05-10-2021

Substrate : Tinplate with nominal dimension 100 x 50 x 0.5 mm (Length x Width x Thickness)

Condition of drying / ageing : 23 ± 2 °C & 50 ± 5 % in P.H. for 7 days

Solid content percentage : 37%

Requirement of dry film thickness : 75 ± 10 µm

Type of bend test apparatus : Type 1 (Diameter of mandrel : 10 mm)

Test condition : 23 ± 2 °C & 50 ± 5 % in R.H.

Specimen No.	BD-01
Average Dry Film Thickness (µm)	77.1
Results	No observable change

Remarks :

1. Test results relate only to the specimen(s) tested.

Checked by :

KWOK KING HO
Assistant Technical Officer

Approved Signatory :

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End of Report

Form No. : PA(BB)-Bend(BS3416) T dd 05/05/2021

Flash Point

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Test Report

Paint Bitumen-Based - Flash Point

(BS 3416 : 1991 Cl. 5 and Cl. B.1 of App. B and BS 3900 : Part A13 : 1986 Cl. 7.2 (Method 2))

Date of issue : 05-11-2021

Page 1 of 1 page(s)

Castco LRN : 210929-2356-1

Information as supplied by customer :-

Works Order No. : --

Customer : Cheung Hing Foundry (HK) Limited
Address : 299 Pak Sha Tsuen, Kung Um Road, Yuen Long, N.T.
Job Title : --
Sample Description : Bitumen Based Coating
Brand Name : 青松牌
Type : 2
Sample ID : PM02109-03

Customer's Ref. No. : --
Contract No. : --

Manufacturer : 怡昌化工
Class : C

Laboratory test result

Date of sample received : 31-08-2021

Date of test started : 27-09-2021

Date of test completed : 28-09-2021

Inspection for ullage ($\leq 10\%$ of the total capacity of the container) : Yes

Test No.	1	2
Selected equilibrium temperature (°C)	32 °C	
Atmospheric pressure (mmHg)	760	760
Corrected equilibrium temperature (°C)	32.0	32.0
Test results	No flash	No flash
	No flash	

Remarks :

1. Test results relate only to the specimen(s) tested.

Checked by :

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End of Report

Form No. PA(B)-Flash(BS3416), T dd 05/05/2021

Finish

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Test Report

Paint - Bitumen-Based - Finish

(BS 3416 : 1991 Cl. 7 and Cl. B.3 of App. C, App. C (with modifications) and BS 3900 : Part A3 : 1997 Cl. 3)

Date of issue : 05-11-2021

Page 1 of 1 page(s)

Castco LRN : 210929-2356-3

Information as supplied by customer :-

Works Order No. : --

Customer : Cheung Hing Foundry (HK) Limited

Customer's Ref. No. : --

Address : 299 Pak Sha Tsuen, Kung Uin Road, Yuen Long, N.T.

Contract No. : --

Job Title : --

Sample Description : Bitumen Based Coating

Brand Name : 青松牌

Manufacturer : 怡昌化工

Type : 2

Class : C

Sample ID : PM02109-03

Laboratory test result

Date of sample received : 31-08-2021

Date of test started : 27-09-2021

Date of test completed : 05-10-2021

Substrate : Steel panel with nominal dimension 300 x 300 mm (Length x Width)

Condition of drying / ageing : $23 \pm 2^\circ\text{C}$ & $50 \pm 5\%$ in R.H. for 7 days

Solid content percentage : 37%

Requirement of dry film thickness : $75 \pm 10 \mu\text{m}$

Specimen No.	F-01
Average Dry Film Thickness (μm)	78.9
Smooth, opaque and free from sags or runs or other surface imperfections	Yes

Remarks :

1. Test results relate only to the specimen(s) tested

Checked by :

KWOK KENG HO
Assistant Technical Officer

Approved Signatory :

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End of Report

Form No. : PA(BB)-Finish(BS3416) - add 05/05/2021